ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

□ **Cat#** CG-ST40 Streptavidin colloidal gold conjugated (40 nm, OD10) **Size**: 0.5 mL

Colloidal gold are electron dense non-fading markers that can be used as probes in electron microscopy, light microscopy, and immunoassays. Colloidal gold requires no additional processing for detection although silver enhancement can be done which increases the signal 10-fold. Biomolecules are complexed with colloidal gold through ionic interactions and the positive charge of proteins or antibodies with the negative charge of the surface of the gold colloid. Generally, particles less than 15 nm are used in transmission electron microscopy due to better penetration allowed by smaller probes. Particles greater than 15 nm are more suitable for scanning electron microscopy, light microscopy, and immunoassays.

Streptavidin is a 53kDa protein purified from the bacterium Streptomyces avidinii. Streptavidin is a homo tetramer that has an extremrely high affinity for the small molecule biotin (Vitamin B7 or vitamin H). The disassociation constant (Kd=10^-14 mol/L) of biotin/streptavidin is one of the strongest non-covalent interactions found in nature. It used in biotechnology due to its ability to enhance the sensitivity of reactions 10 fold or more and its resistance to many denaturants.

Form and Storage

Gold nanoparticle core size: 40 nm

Optical density: 10

Wavelength (nm): 521-526 (lot specific, see vial)

Blocking Agent: □ BSA □ Casein □PEG-20k

Stabilizers: Trehalose and Sucrose

Buffer: Phosphate buffer pH 7.4, 1% BSA

Preservative: 0.1% Sodium Azide

Storage: Store at 4ºC

Stability: Stable for 6 months in liquid if stored at 4ºC. *Particles may settle on the bottom of the vial, mix with a pipette before use.

Suggested Uses: This preparation is ready to use for Lateral Flow Immunoassays. Apply 4-6 ul per 0.4 cm strip. For other applications dilutions may range from A520=1.0-0.05 (1:10-1:200 dilution). Incubation times generally range from 0.5-12 hours.

Related Material available for ADI

Catalog#	Description
20365	Streptavidin-Peroxidase (HRP) conjugate
20366	Streptavidin-AP (Alk Phosphatase) conjugate
20367	Streptavidin-Fluorescein (FITC) conjugate
20368	Streptavidin-Rhodamine (TRITC) conjugate
20369	Streptavidin-Phycoerythrin (PE) conjugate
AD-144-B	Streptavidin (31), DNA Aptamer, Biotinylated
AD-144-F	Streptavidin (31), DNA Aptamer, FITC labeled
AD-144-U	Streptavidin (31), DNA Aptamer, unlabeled
CG-ST40	Streptavidin colloidal gold conjugated (40 nm, OD10)
RP-1531	Streptavidin
RP-803	Recombinant (E.Coli) Streptavidin-NC
SV-A488-100	Streptavidin-Alexa488 (Alexas fluor 488) conjugate
SV-A594-100	Streptavidin-Alexa594 (Alexas fluor 594) conjugate
SV-C5-100	Streptavidin-Cy5.5 conjugate
SVDN11-R-1	Purified >98% (S. Avidinii) Streptavidin protein
SVDN11-R-5	Purified >98% (S. Avidinii) Streptavidin protein
SVDN55-5P	Streptavidin coated ELISA plates (8 wells strip, 96 wells/plates) 5 plates/pk
SV-PEC5-100	Streptavidin-PE-Cy5.5 conjugate
SV-PEC7-100	Streptavidin-PE-Cy7 conjugate
SV-PETR-100	Streptavidin-PE-TR (Texas red) conjugate
20370-SK-1	Streptavidin-Keyhole limpet hemocyanin (SA-KLH/SVDN-KLH) conjugate
80305-SAP	Streptavidin-Alkaline Phosphatase conjugate activity Elisa kit, 48 tests, quantitative
80306-SRP	Streptavidin-Horseradish peroxidase (HRP) conjugate activity Elisa kit, 48 tests, quantitative

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com